

The listing of claims will replace all prior versions, and listings, of claims in the application:

**Listing of Claims:**

1. (Currently Amended) An operation method of ~~a semiconductor~~ an active matrix display device comprising:

... a substrate having an insulating surface;

a first signal line extending over said substrate;

a first top-gate type thin film transistor having a channel region comprising crystalline silicon formed over said substrate wherein a gate of said first thin film transistor is connected to said first signal line;

a second signal line extending across said first signal line;

a second top-gate type thin film transistor having a channel region comprising crystalline silicon formed over said substrate wherein a gate of said second thin film transistor is electrically connected to said second signal line through at least said first thin film transistor;

a voltage supply line formed over said substrate;

a pixel electrode formed over said substrate wherein said pixel electrode is connected to said voltage supply line through at least said second thin film transistor;  
and

a driving circuit formed over said substrate for driving at least one of said first and second thin film transistors, said driving circuit comprising a third thin film transistor wherein a channel forming region of said third thin film transistor comprises crystalline silicon,

said method comprising a step of applying a voltage from said voltage supply line to said pixel electrode for a period during one frame, wherein said period is determined in accordance with a desired tone of a display.

2. (Currently Amended) An operation method of ~~a semiconductor~~ an active matrix display device comprising:

a substrate having an insulating surface;

a first signal line extending over said substrate;

a first bottom gate type thin film transistor having a channel region comprising crystalline silicon formed over said substrate wherein a gate of said first thin film transistor is connected to said first signal line;

a second signal line extending across said first signal line;

a second bottom gate type thin film transistor having a channel region comprising crystalline silicon formed over said substrate wherein a gate of said second thin film transistor is electrically connected to said second signal line through at least said first thin film transistor;

a voltage supply line formed over said substrate;

a pixel electrode formed over said substrate wherein said pixel electrode is connected to said voltage supply line through at least said second thin film transistor;  
and

a driving circuit formed over said substrate for driving at least one of said first and second thin film transistors, said driving circuit comprising a third thin film transistor wherein a channel forming region of said third thin film transistor comprises crystalline silicon,

said method comprising a step of applying a voltage from said voltage supply line to said pixel electrode for a period during one frame, wherein said period is determined in accordance with a desired tone of a display.

3. (Currently Amended) An operation method of ~~a semiconductor~~ an active matrix display device comprising:

a substrate having an insulating surface;

a first signal line extending over said substrate;

a first thin film transistor having a channel region comprising crystalline silicon formed over said substrate wherein a gate of said first thin film transistor is connected to said first signal line;

a second signal line extending across said first signal line;

a second thin film transistor having a channel region comprising crystalline silicon formed over said substrate wherein a signal is applied to a gate of said second thin film transistor from said second signal line through at least said first thin film transistor;

a voltage supply line formed over said substrate;

a pixel electrode formed over said substrate wherein said pixel electrode is supplied with a voltage from said voltage supply line through at least said second thin film transistor; and

a driving circuit formed over said substrate for driving at least one of said first and second thin film transistors, said driving circuit comprising a third thin film transistor wherein a channel forming region of said third thin film transistor comprises crystalline silicon,

said method comprising a step of applying a voltage from said voltage supply line to said pixel electrode for a period during one frame, wherein said period is determined in accordance with a desired tone of a display.

4. (Currently Amended) An operation method of ~~semiconductor~~ an active matrix display device comprising:

a substrate having an insulating surface;

a first signal line extending over said substrate;

a first top-gate type thin film transistor having a channel region comprising crystalline silicon formed over said substrate wherein a gate of said first thin film transistor is connected to said first signal line;

a second signal line extending across said first signal line;

a second top-gate type thin film transistor having a channel region comprising crystalline silicon formed over said substrate wherein a gate of said second thin film transistor is electrically connected to said second signal line through at least said first thin film transistor;

a voltage supply line formed over said substrate;

a surface smoothing film formed over said first and second thin film transistors;

a pixel electrode formed over said surface smoothing film wherein said pixel electrode is connected to said voltage supply line through at least said second thin film transistor; and

a driving circuit formed over said substrate for driving at least one of said first and second thin film transistors, said driving circuit comprising a third thin film transistor wherein a channel forming region of said third thin film transistor comprises crystalline silicon,

said method comprising a step of applying a voltage from said voltage supply line to said pixel electrode for a period during one frame, wherein said period is determined in accordance with a desired tone of a display.

5. (Currently Amended) An operation method of ~~a semiconductor~~ an active matrix display device comprising:

a substrate having an insulating surface;

a first signal line extending over said substrate;

a first bottom gate type thin film transistor having a channel region comprising crystalline silicon formed over said substrate wherein a gate of said first thin film transistor is connected to said first signal line;

a second signal line extending across said first signal line;

a second bottom gate type thin film transistor having a channel region comprising crystalline silicon formed over said substrate wherein a gate of said second thin film

transistor is electrically connected to said second signal line through at least said first thin film transistor;

a voltage supply line formed over said substrate;

a surface smoothing film formed over said first and second thin film transistors;

a pixel electrode formed over said surface smoothing film wherein said pixel electrode is connected to said voltage supply line through at least said second thin film transistor; and

a driving circuit formed over said substrate for driving at least one of said first and second thin film transistors, said driving circuit comprising a third thin film transistor wherein a channel forming region of said third thin film transistor comprises crystalline silicon,

said method comprising a step of applying a voltage from said voltage supply line to said pixel electrode for a period during one frame, wherein said period is determined in accordance with a desired tone of a display.

6. (Currently Amended) An operation method of ~~semiconductor~~ an active matrix display device comprising:

a substrate having an insulating surface;

a first signal line extending over said substrate;

a first thin film transistor having a channel region comprising crystalline silicon formed over said substrate wherein a gate of said first thin film transistor is connected to said first signal line;

a second signal line extending across said first signal line;

a second thin film transistor having a channel region comprising crystalline silicon formed over said substrate wherein a signal is applied to a gate of said second thin film transistor from said second signal line through at least said first thin film transistor;

a voltage supply line formed over said substrate;

a surface smoothing film formed over said first and second thin film transistors;

a pixel electrode formed over said surface smoothing film wherein said pixel electrode is supplied with a voltage from said voltage supply line through at least said second thin film transistor; and

a driving circuit formed over said substrate for driving at least one of said first and second thin film transistors, said driving circuit comprising a third thin film transistor wherein a channel forming region of said third thin film transistor comprises crystalline silicon,

said method comprising a step of applying a voltage from said voltage supply line to said pixel electrode for a period during one frame, wherein said period is determined in accordance with a desired tone of a display.

7. (Currently Amended) An operation method of ~~a semiconductor~~ an active matrix display device comprising:

a substrate having an insulating surface;

a first signal line extending over said substrate;

a first top-gate type thin film transistor having a channel region comprising crystalline silicon formed over said substrate wherein a gate of said first thin film transistor is connected to said first signal line;

a second signal line extending across said first signal line;

a second top-gate type thin film transistor having a channel region comprising crystalline silicon formed over said substrate wherein a gate of said second thin film transistor is electrically connected to said second signal line through at least said first thin film transistor;

a voltage supply line formed over said substrate;

a pixel electrode formed over said substrate wherein said pixel electrode is connected to said voltage supply line through at least said second thin film transistor; and

a driving circuit formed over said substrate for driving at least one of said first and second thin film transistors, said driving circuit comprising a third thin film transistor wherein a channel forming region of said third thin film transistor comprises crystalline silicon,

wherein a channel width of said second thin film transistor is larger than a channel width of said first thin film transistor,

said method comprising a step of applying a voltage from said voltage supply line to said pixel electrode for a period during one frame, wherein said period is determined in accordance with a desired tone of a display.

8. (Currently Amended) An operation method of ~~a semiconductor~~ an active matrix display device comprising:

a substrate having an insulating surface;

a first signal line extending over said substrate;

a first bottom gate type thin film transistor having a channel region comprising crystalline silicon formed over said substrate wherein a gate of said first thin film transistor is connected to said first signal line;

a second signal line extending across said first signal line;

a second bottom gate type thin film transistor having a channel region comprising crystalline silicon formed over said substrate wherein a gate of said second thin film transistor is electrically connected to said second signal line through at least said first thin film transistor;

a voltage supply line formed over said substrate;

a pixel electrode formed over said substrate wherein said pixel electrode is connected to said voltage supply line through at least said second thin film transistor;  
and

a driving circuit formed over said substrate for driving at least one of said first and second thin film transistors, said driving circuit comprising a third thin film transistor

wherein a channel forming region of said third thin film transistor comprises crystalline silicon,

wherein a channel width of said second thin film transistor is larger than a channel width of said first thin film transistor,

said method comprising a step of applying a voltage from said voltage supply line to said pixel electrode for a period during one frame, wherein said period is determined in accordance with a desired tone of a display.

9. (Currently Amended) An operation method of ~~a semiconductor~~ an active matrix display device comprising:

a substrate having an insulating surface;

a first signal line extending over said substrate;

a first thin film transistor having a channel region comprising crystalline silicon formed over said substrate wherein a gate of said first thin film transistor is connected to said first signal line;

a second signal line extending across said first signal line;

a second thin film transistor having a channel region comprising crystalline silicon formed over said substrate wherein a signal is applied to a gate of said second thin film transistor from said second signal line through at least said first thin film transistor;

a voltage supply line formed over said substrate;

a pixel electrode formed over said substrate wherein said pixel electrode is supplied with a voltage from said voltage supply line through at least said second thin film transistor; and

a driving circuit formed over said substrate for driving at least one of said first and second thin film transistors, said driving circuit comprising a third thin film transistor wherein a channel forming region of said third thin film transistor comprises crystalline silicon,



wherein a channel width of said second thin film transistor is larger than a channel width of said first thin film transistor,

said method comprising a step of applying a voltage from said voltage supply line to said pixel electrode for a period during one frame, wherein said period is determined in accordance with a desired tone of a display.

10. (Currently Amended) An operation method of ~~a semiconductor~~ an active matrix display device comprising:

- a substrate having an insulating surface;

- a first signal line extending over said substrate;

- a first top-gate type thin film transistor having a channel region comprising crystalline silicon and a first pair of impurity regions formed over said substrate wherein a gate of said first thin film transistor is connected to said first signal line;

- a second signal line extending across said first signal line

- a second top-gate type thin film transistor having a channel region comprising crystalline silicon and a second pair of impurity regions formed over said substrate wherein a gate of said second thin film transistor is electrically connected to said second signal line through at least said first thin film transistor;

- a voltage supply line formed over said substrate;

- a pixel electrode formed over said substrate wherein said pixel electrode is connected to said voltage supply line through at least said second thin film transistor;

and

- a driving circuit formed over said substrate for driving at least one of said first and second thin film transistors, said driving circuit comprising a third thin film transistor wherein a channel forming region of said third thin film transistor comprises crystalline silicon,

said method comprising a step of applying a voltage from said voltage supply line to said pixel electrode for a period during one frame, wherein said period is determined in accordance with a desired tone of a display.

11. (Currently Amended) An operation method of ~~a semiconductor~~ an active matrix display device comprising:

- a substrate having an insulating surface;

- a first signal line extending over said substrate;

- a first bottom gate type thin film transistor having a channel region comprising crystalline silicon and a first pair of impurity regions formed over said substrate wherein a gate of said first thin film transistor is connected to said first signal line;

- a second signal line extending across said first signal line;

- a second bottom gate type thin film transistor having a channel region comprising crystalline silicon and a second pair of impurity regions formed over said substrate wherein a gate of said second thin film transistor is electrically connected to said second signal line through at least said first thin film transistor;

- a voltage supply line formed over said substrate;

- a pixel electrode formed over said substrate wherein said pixel electrode is connected to said voltage supply line through at least said second thin film transistor;

and

- a driving circuit formed over said substrate for driving at least one of said first and second thin film transistors, said driving circuit comprising a third thin film transistor wherein a channel forming region of said third thin film transistor comprises crystalline silicon,

said method comprising a step of applying a voltage from said voltage supply line to said pixel electrode for a period during one frame, wherein said period is determined in accordance with a desired tone of a display.

12. (Currently Amended) An operation method of ~~a semiconductor~~ an active matrix display device comprising:

- a substrate having an insulating surface;
  - a first signal line extending over said substrate;
  - a first thin film transistor having a channel region comprising crystalline silicon and a first pair of impurity regions formed over said substrate wherein a gate of said first thin film transistor is connected to said first signal line;
  - a second signal line extending across said first signal line;
  - a second thin film transistor having a channel region comprising crystalline silicon and a second pair of impurity regions formed over said substrate wherein a signal is applied to a gate of said second thin film transistor from said second signal line through at least said first thin film transistor;
  - a voltage supply line formed over said substrate;
  - a pixel electrode formed over said substrate wherein said pixel electrode is supplied with a voltage from said voltage supply line through at least said second thin film transistor; and
  - a driving circuit formed over said substrate for driving at least one of said first and second thin film transistors, said driving circuit comprising a third thin film transistor wherein a channel forming region of said third thin film transistor comprises crystalline silicon,
- said method comprising a step of applying a voltage from said voltage supply line to said pixel electrode for a period during one frame, wherein said period is determined in accordance with a desired tone of a display.

13. (Currently Amended) An operation method of ~~a semiconductor~~ an active matrix display device comprising:

- a substrate having an insulating surface;
- a first signal line extending over said substrate;

a first top-gate type thin film transistor having a channel region comprising crystalline silicon and a first pair of impurity regions formed over said substrate wherein a gate of said first thin film transistor is connected to said first signal line;  
a second signal line extending across said first signal line;

a second top-gate type thin film transistor having a channel region comprising crystalline silicon and a second pair of impurity regions formed over said substrate wherein a gate of said second thin film transistor is electrically connected to said second signal line through at least said first thin film transistor;

a voltage supply line formed over said substrate;

a surface smoothing film formed over said first and second thin film transistors;

a pixel electrode formed over said surface smoothing film wherein said pixel electrode is connected to said voltage supply line through at least said second thin film transistor; and

a driving circuit formed over said substrate for driving at least one of said first and second thin film transistors, said driving circuit comprising a third thin film transistor wherein a channel forming region of said third thin film transistor comprises crystalline silicon,

said method comprising a step of applying a voltage from said voltage supply line to said pixel electrode for a period during one frame, wherein said period is determined in accordance with a desired tone of a display.

14. (Currently Amended) An operation method of ~~a semiconductor~~ an active matrix display device comprising:

a substrate having an insulating surface;

a first signal line extending over said substrate;

a first bottom gate type thin film transistor having a channel region comprising crystalline silicon and a first pair of impurity regions formed over said substrate wherein a gate of said first thin film transistor is connected to said first signal line;

a second signal line extending across said first signal line;

a second bottom gate type thin film transistor having a channel region comprising crystalline silicon and a second pair of impurity regions formed over said substrate wherein a gate of said second thin film transistor is electrically connected to said second signal line through at least said first thin film transistor;

a voltage supply line formed over said substrate;

a surface smoothing film formed over said first and second thin film transistors;

a pixel electrode formed over said surface smoothing film wherein said pixel electrode is connected to said voltage supply line through at least said second thin film transistor; and

a driving circuit formed over said substrate for driving at least one of said first and second thin film transistors, said driving circuit comprising a third thin film transistor wherein a channel forming region of said third thin film transistor comprises crystalline silicon,

said method comprising a step of applying a voltage from said voltage supply line to said pixel electrode for a period during one frame, wherein said period is determined in accordance with a desired tone of a display.

15. (Currently Amended) An operation method of ~~a semiconductor~~ an active matrix display device comprising:

a substrate having an insulating surface;

a first signal line extending over said substrate;

a first thin film transistor having a channel region comprising crystalline silicon and a first pair of impurity regions formed over said substrate wherein a gate of said first thin film transistor is connected to said first signal line;

a second signal line extending across said first signal line;

a second thin film transistor having a channel region comprising crystalline silicon and a second pair of impurity regions formed over said substrate wherein a signal is

applied to a gate of said second thin film transistor from said second signal line through at least said first thin film transistor;

a voltage supply line formed over said substrate;

a surface smoothing film formed over said first and second thin film transistors;

a pixel electrode formed over said surface smoothing film wherein said pixel electrode is supplied with a voltage from said voltage supply line through at least said second thin film transistor; and

a driving circuit formed over said substrate for driving at least one of said first and second thin film transistors, said driving circuit comprising a third thin film transistor wherein a channel forming region of said third thin film transistor comprises crystalline silicon,

said method comprising a step of applying a voltage from said voltage supply line to said pixel electrode for a period during one frame, wherein said period is determined in accordance with a desired tone of a display.

16. (Currently Amended) An operation method of ~~a semiconductor~~ an active matrix display device comprising:

a substrate having an insulating surface;

a first signal line extending over said substrate;

a first top-gate type thin film transistor having a channel region comprising crystalline silicon and a first pair of impurity regions formed over said substrate wherein a gate of said first thin film transistor is connected to said first signal line;

a second signal line extending across said first signal line;

a second top-gate type thin film transistor having a channel region comprising crystalline silicon and a second pair of impurity regions formed over said substrate wherein a gate of said second thin film transistor is electrically connected to said second signal line through at least said first thin film transistor;

a voltage supply line formed over said substrate;

a pixel electrode formed over said substrate wherein said pixel electrode is connected to said voltage supply line through at least said second thin film transistor; and

a driving circuit formed over said substrate for driving at least one of said first and second thin film transistors, said driving circuit comprising a third thin film transistor wherein a channel forming region of said third thin film transistor comprises crystalline silicon,

wherein a channel width of said second thin film transistor is larger than a channel width of said first thin film transistor,

said method comprising a step of applying a voltage from said voltage supply line to said pixel electrode for a period during one frame, wherein said period is determined in accordance with a desired tone of a display.

17. (Currently Amended) An operation method of ~~a semiconductor~~ an active matrix display device comprising:

a substrate having an insulating surface;

a first signal line extending over said substrate;

a first bottom gate type thin film transistor having a channel region comprising crystalline silicon and a first pair of impurity regions formed over said substrate wherein a gate of said first thin film transistor is connected to said first signal line;

a second signal line extending across said first signal line;

a second bottom gate type thin film transistor having a channel region comprising crystalline silicon and a second pair of impurity regions formed over said substrate wherein a gate of said second thin film transistor is electrically connected to said second signal line through at least said first thin film transistor;

a voltage supply line formed over said substrate;

a pixel electrode formed over said substrate wherein said pixel electrode is connected to said voltage supply line through at least said second thin film transistor; and

a driving circuit formed over said substrate for driving at least one of said first and second thin film transistors, said driving circuit comprising a third thin film transistor wherein a channel forming region of said third thin film transistor comprises crystalline silicon,

wherein a channel width of said second thin film transistor is larger than a channel width of said first thin film transistor,

said method comprising a step of applying a voltage from said voltage supply line to said pixel electrode for a period during one frame, wherein said period is determined in accordance with a desired tone of a display.

18. (Currently Amended) An operation method of ~~a semiconductor~~ an active matrix display device comprising:

a substrate having an insulating surface;

a first signal line extending over said substrate;

a first thin film transistor having a channel region comprising crystalline silicon and a first pair of impurity regions formed over said substrate wherein a gate of said first thin film transistor is connected to said first signal line;

a second signal line extending across said first signal line;

a second thin film transistor having a channel region comprising crystalline silicon and a second pair of impurity regions formed over said substrate wherein a signal is applied to a gate of said second thin film transistor from said second signal line through at least said first thin film transistor;

a voltage supply line formed over said substrate;



a pixel electrode formed over said substrate wherein said pixel electrode is supplied with a voltage from said voltage supply line through at least said second thin film transistor; and

a driving circuit formed over said substrate for driving at least one of said first and second thin film transistors, said driving circuit comprising a third thin film transistor wherein a channel forming region of said third thin film transistor comprises crystalline silicon,

wherein a channel width of said second thin film transistor is larger than a channel width of said first thin film transistor,

said method comprising a step of applying a voltage from said voltage supply line to said pixel electrode for a period during one frame, wherein said period is determined in accordance with a desired tone of a display.

19. (Currently Amended) An operation method of ~~a semiconductor~~ an active matrix display device comprising:

a substrate having an insulating surface;

a first signal line extending over said substrate;

a first top-gate type thin film transistor having a channel region comprising crystalline silicon formed over said substrate wherein a gate of said first thin film transistor is connected to said first signal line;

a second signal line extending across said first signal line;

a second top-gate type thin film transistor having a channel region comprising crystalline silicon formed over said substrate wherein a gate of said second thin film transistor is electrically connected to said second signal line through at least said first thin film transistor;

a voltage supply line formed over said substrate; and

a pixel electrode formed over said substrate wherein said pixel electrode is connected to said voltage supply line through at least said second thin film transistor;

wherein a channel width of said second thin film transistor is larger than a channel width of said first thin film transistor,

said method comprising a step of applying a voltage from said voltage supply line to said pixel electrode for a period during one frame, wherein said period is determined in accordance with a desired tone of a display.

20. (Currently Amended) An operation method of ~~a semiconductor~~ an active matrix display device comprising:

- a substrate having an insulating surface;

- a first signal line extending over said substrate;

- a first bottom gate type thin film transistor having a channel region comprising crystalline silicon formed over said substrate wherein a gate of said first thin film transistor is connected to said first signal line;

- a second signal line extending across said first signal line;

- a second bottom gate type thin film transistor having a channel region comprising crystalline silicon formed over said substrate wherein a gate of said second thin film transistor is electrically connected to said second signal line through at least said first thin film transistor;

- a voltage supply line formed over said substrate; and

- a pixel electrode formed over said substrate wherein said pixel electrode is connected to said voltage supply line through at least said second thin film transistor;

wherein a channel width of said second thin film transistor is larger than a channel width of said first thin film transistor,

said method comprising a step of applying a voltage from said voltage supply line to said pixel electrode for a period during one frame, wherein said period is determined in accordance with a desired tone of a display.

21. (Currently Amended) An operation method of ~~a semiconductor~~ an active matrix display device comprising:

- a substrate having an insulating surface;

- a first signal line extending over said substrate;

- a first thin film transistor having a channel region comprising crystalline silicon formed over said substrate wherein a gate of said first thin film transistor is connected to said first signal line;

- a second signal line extending across said first signal line

- a second thin film transistor having a channel region comprising crystalline silicon formed over said substrate wherein a signal is applied to a gate of said second thin film transistor from said second signal line through at least said first thin film transistor;

- a voltage supply line formed over said substrate; and

- a pixel electrode formed over said substrate wherein said pixel electrode is connected to said voltage supply line through at least said second thin film transistor;

wherein a channel width of said second thin film transistor is larger than a channel width of said first thin film transistor,

said method comprising a step of applying a voltage from said voltage supply line to said pixel electrode for a period during one frame, wherein said period is determined in accordance with a desired tone of a display.

22. (Currently Amended) An operation method of ~~a semiconductor~~ an active matrix display device comprising:

- a substrate having an insulating surface;

- a first signal line extending over said substrate;

- a first top-gate type thin film transistor having a channel region comprising crystalline silicon and a first pair of impurity regions formed over said substrate wherein a gate of said first thin film transistor is connected to said first signal line;

- a second signal line extending across said first signal line;

a second top-gate type thin film transistor having a channel region comprising crystalline silicon and a second pair of impurity regions formed over said substrate wherein a gate of said second thin film transistor is electrically connected to said second signal line through at least said first thin film transistor;

a voltage supply line formed over said substrate;

a pixel electrode formed over said substrate wherein said pixel electrode is connected to said voltage supply line through at least said second thin film transistor;  
and

wherein a channel width of said second thin film transistor is larger than a channel width of said first thin film transistor,

said method comprising a step of applying a voltage from said voltage supply line to said pixel electrode for a period during one frame, wherein said period is determined in accordance with a desired tone of a display.

23. (Currently Amended) An operation method of ~~a semiconductor~~ an active matrix display device comprising:

a substrate having an insulating surface;

a first signal line extending over said substrate;

a first bottom gate type thin film transistor having a channel region comprising crystalline silicon and a first pair of impurity regions formed over said substrate wherein a gate of said first thin film transistor is connected to said first signal line;

a second signal line extending across said first signal line;

a second bottom gate type thin film transistor having a channel region comprising crystalline silicon and a second pair of impurity regions formed over said substrate wherein a gate of said second thin film transistor is electrically connected to said second signal line through at least said first thin film transistor;

a voltage supply line formed over said substrate;

a pixel electrode formed over said substrate wherein said pixel electrode is connected to said voltage supply line through at least said second thin film transistor; and

wherein a channel width of said second thin film transistor is larger than a channel width of said first thin film transistor,  
said method comprising a step of applying a voltage from said voltage supply line to said pixel electrode for a period during one frame, wherein said period is determined in accordance with a desired tone of a display.

24. (Currently Amended) An operation method of ~~a semiconductor~~ an active matrix display device comprising:

a substrate having an insulating surface;

a first signal line extending over said substrate;

a first thin film transistor having a channel region comprising crystalline silicon and a first pair of impurity regions formed over said substrate wherein a gate of said first thin film transistor is connected to said first signal line;

a second signal line extending across said first signal line;

a second thin film transistor having a channel region comprising crystalline silicon and a second pair of impurity regions formed over said substrate wherein a signal is applied to a gate of said second thin film transistor from said second signal line through at least said first thin film transistor;

a voltage supply line formed over said substrate;

a pixel electrode formed over said substrate wherein said pixel electrode is supplied with a voltage from said voltage supply line through at least said second thin film transistor; and

wherein a channel width of said second thin film transistor is larger than a channel width of said first thin film transistor,

said method comprising a step of applying a voltage from said voltage supply line to said pixel electrode for a period during one frame, wherein said period is determined in accordance with a desired tone of a display.

25. (Currently Amended) An operation method of ~~a semiconductor~~ an active matrix display device comprising:

- a substrate having an insulating surface;

- a first signal line extending over said substrate;

- a first top-gate type thin film transistor having a channel region comprising crystalline silicon formed over said substrate wherein a gate of said first thin film transistor is connected to said first signal line;

- a second signal line extending across said first signal line;

- a second top-gate type thin film transistor having a channel region comprising crystalline silicon formed over said substrate wherein a gate of said second thin film transistor is electrically connected to said second signal line through at least said first thin film transistor;

- a voltage supply line formed over said substrate;

- a pixel electrode formed over said substrate wherein said pixel electrode is connected to said voltage supply line through at least said second thin film transistor;

and

- a driving circuit formed over said substrate for driving at least one of said first and second thin film transistors, said driving circuit comprising a third thin film transistor wherein a channel forming region of said third thin film transistor comprises crystalline silicon,

said method comprising a step of applying one or more pulses from said voltage supply line to said pixel electrode during one frame wherein a number of pulses applied to said pixel electrode during one frame is determined in accordance with a desired tone of a display.

26. (Currently Amended) An operation method of ~~a semiconductor~~ an active matrix display device comprising:

- a substrate having an insulating surface;

- a first signal line extending over said substrate;

- a first bottom gate type thin film transistor having a channel region comprising crystalline silicon formed over said substrate wherein a gate of said first thin film transistor is connected to said first signal line;

- a second signal line extending across said first signal line;

- a second bottom gate type thin film transistor having a channel region comprising crystalline silicon formed over said substrate wherein a gate of said second thin film transistor is electrically connected to said second signal line through at least said first thin film transistor;

- a voltage supply line formed over said substrate;

- a pixel electrode formed over said substrate wherein said pixel electrode is connected to said voltage supply line through at least said second thin film transistor;

and

- a driving circuit formed over said substrate for driving at least one of said first and second thin film transistors, said driving circuit comprising a third thin film transistor wherein a channel forming region of said third thin film transistor comprises crystalline silicon,

- said method comprising a step of applying one or more pulses from said voltage supply line to said pixel electrode during one frame wherein a number of pulses applied to said pixel electrode during one frame is determined in accordance with a desired tone of a display.

27. (Currently Amended) An operation method of ~~a semiconductor~~ an active matrix display device comprising:

a substrate having an insulating surface;

a first signal line extending over said substrate;

a first thin film transistor having a channel region comprising crystalline silicon formed over said substrate wherein a gate of said first thin film transistor is connected to said first signal line;

a second signal line extending across said first signal line;

a second thin film transistor having a channel region comprising crystalline silicon formed over said substrate wherein a signal is applied to a gate of said second thin film transistor from said second signal line through at least said first thin film transistor;

a voltage supply line formed over said substrate;

a pixel electrode formed over said substrate wherein said pixel electrode is supplied with a voltage from said voltage supply line through at least said second thin film transistor; and

a driving circuit formed over said substrate for driving at least one of said first and second thin film transistors, said driving circuit comprising a third thin film transistor wherein a channel forming region of said third thin film transistor comprises crystalline silicon,

said method comprising a step of applying one or more pulses from said voltage supply line to said pixel electrode during one frame wherein a number of pulses applied to said pixel electrode during one frame is determined in accordance with a desired tone of a display.

28. (Currently Amended) An operation method of ~~a semiconductor~~ an active matrix display device comprising:

a substrate having an insulating surface;

a first signal line extending over said substrate;



a first top-gate type thin film transistor having a channel region comprising crystalline silicon formed over said substrate wherein a gate of said first thin film transistor is connected to said first signal line;

a second signal line extending across said first signal line;

a second top-gate type thin film transistor having a channel region comprising crystalline silicon formed over said substrate wherein a gate of said second thin film transistor is electrically connected to said second signal line through at least said first thin film transistor;

a voltage supply line formed over said substrate;

a surface smoothing film formed over said first and second thin film transistors;

a pixel electrode formed over said surface smoothing film wherein said pixel electrode is connected to said voltage supply line through at least said second thin film transistor; and

a driving circuit formed over said substrate for driving at least one of said first and second thin film transistors, said driving circuit comprising a third thin film transistor wherein a channel forming region of said third thin film transistor comprises crystalline silicon,

said method comprising a step of applying one or more pulses from said voltage supply line to said pixel electrode during one frame wherein a number of pulses applied to said pixel electrode during one frame is determined in accordance with a desired tone of a display.

29. (Currently Amended) An operation method of ~~a semiconductor~~ an active matrix display device comprising:

a substrate having an insulating surface;

a first signal line extending over said substrate;

a first bottom gate type thin film transistor having a channel region comprising crystalline silicon formed over said substrate wherein a gate of said first thin film transistor is connected to said first signal line;

a second signal line extending across said first signal line;

a second bottom gate type thin film transistor having a channel region comprising crystalline silicon formed over said substrate wherein a gate of said second thin film transistor is electrically connected to said second signal line through at least said first thin film transistor;

a voltage supply line formed over said substrate;

a surface smoothing film formed over said first and second thin film transistors;

a pixel electrode formed over said surface smoothing film wherein said pixel electrode is connected to said voltage supply line through at least said second thin film transistor; and

a driving circuit formed over said substrate for driving at least one of said first and second thin film transistors, said driving circuit comprising a third thin film transistor wherein a channel forming region of said third thin film transistor comprises crystalline silicon,

said method comprising a step of applying one or more pulses from said voltage supply line to said pixel electrode during one frame wherein a number of pulses applied to said pixel electrode during one frame is determined in accordance with a desired tone of a display.

30. (Currently Amended) An operation method of ~~a semiconductor~~ an active matrix display device comprising:

a substrate having an insulating surface;

a first signal line extending over said substrate;

a first thin film transistor having a channel region comprising crystalline silicon formed over said substrate wherein a gate of said first thin film transistor is connected to said first signal line;

a second signal line extending across said first signal line;

a second thin film transistor having a channel region comprising crystalline silicon formed over said substrate wherein a signal is applied to a gate of said second thin film transistor from said second signal line through at least said first thin film transistor;

a voltage supply line formed over said substrate;

a surface smoothing film formed over said first and second thin film transistors;

a pixel electrode formed over said surface smoothing film wherein said pixel electrode is supplied with a voltage from said voltage supply line through at least said second thin film transistor; and

a driving circuit formed over said substrate for driving at least one of said first and second thin film transistors, said driving circuit comprising a third thin film transistor wherein a channel forming region of said third thin film transistor comprises crystalline silicon,

said method comprising a step of applying one or more pulses from said voltage supply line to said pixel electrode during one frame wherein a number of pulses applied to said pixel electrode during one frame is determined in accordance with a desired tone of a display.

31. (Currently Amended) An operation method of ~~a semiconductor~~ an active matrix display device comprising:

a substrate having an insulating surface;

a first signal line extending over said substrate;

a first top-gate type thin film transistor having a channel region comprising crystalline silicon formed over said substrate wherein a gate of said first thin film transistor is connected to said first signal line;

a second signal line extending across said first signal line;

a second top-gate type thin film transistor having a channel region comprising crystalline silicon formed over said substrate wherein a gate of said second thin film transistor is electrically connected to said second signal line through at least said first thin film transistor;

a voltage supply line formed over said substrate;

a pixel electrode formed over said substrate wherein said pixel electrode is connected to said voltage supply line through at least said second thin film transistor;  
and

a driving circuit formed over said substrate for driving at least one of said first and second thin film transistors, said driving circuit comprising a third thin film transistor wherein a channel forming region of said third thin film transistor comprises crystalline silicon,

wherein a channel width of said second thin film transistor is larger than a channel width of said first thin film transistor,

said method comprising a step of applying one or more pulses from said voltage supply line to said pixel electrode during one frame wherein a number of pulses applied to said pixel electrode during one frame is determined in accordance with a desired tone of a display.

32. (Currently Amended) An operation method of ~~a semiconductor~~ an active matrix display device comprising:

a substrate having an insulating surface;

a first signal line extending over said substrate;

a first bottom gate type thin film transistor having a channel region comprising crystalline silicon formed over said substrate wherein a gate of said first thin film transistor is connected to said first signal line;

a second signal line extending across said first signal line;

a second bottom gate type thin film transistor having a channel region comprising crystalline silicon formed over said substrate wherein a gate of said second thin film transistor is electrically connected to said second signal line through at least said first thin film transistor;

a voltage supply line formed over said substrate;

a pixel electrode formed over said substrate wherein said pixel electrode is connected to said voltage supply line through at least said second thin film transistor; and

a driving circuit formed over said substrate for driving at least one of said first and second thin film transistors, said driving circuit comprising a third thin film transistor wherein a channel forming region of said third thin film transistor comprises crystalline silicon,

wherein a channel width of said second thin film transistor is larger than a channel width of said first thin film transistor,

said method comprising a step of applying one or more pulses from said voltage supply line to said pixel electrode during one frame wherein a number of pulses applied to said pixel electrode during one frame is determined in accordance with a desired tone of a display.

33. (Currently Amended) An operation method of ~~a semiconductor~~ an active matrix display device comprising:

a substrate having an insulating surface;

a first signal line extending over said substrate;

a first thin film transistor having a channel region comprising crystalline silicon formed over said substrate wherein a gate of said first thin film transistor is connected to said first signal line;

a second signal line extending across said first signal line;

a second thin film transistor having a channel region comprising crystalline silicon formed over said substrate wherein a signal is applied to a gate of said second thin film transistor from said second signal line through at least said first thin film transistor;

a voltage supply line formed over said substrate;

a pixel electrode formed over said substrate wherein said pixel electrode is supplied with a voltage from said voltage supply line through at least said second thin film transistor; and

a driving circuit formed over said substrate for driving at least one of said first and second thin film transistors, said driving circuit comprising a third thin film transistor wherein a channel forming region of said third thin film transistor comprises crystalline silicon,

wherein a channel width of said second thin film transistor is larger than a channel width of said first thin film transistor,

said method comprising a step of applying one or more pulses from said voltage supply line to said pixel electrode during one frame wherein a number of pulses applied to said pixel electrode during one frame is determined in accordance with a desired tone of a display.

34. (Currently Amended) An operation method of ~~a semiconductor~~ an active matrix display device comprising:

a substrate having an insulating surface;

a first signal line extending over said substrate;

a first top-gate type thin film transistor having a channel region comprising crystalline silicon and a first pair of impurity regions formed over said substrate wherein a gate of said first thin film transistor is connected to said first signal line;

a second signal line extending across said first signal line;

a second top-gate type thin film transistor having a channel region comprising crystalline silicon and a second pair of impurity regions formed over said substrate

wherein a gate of said second thin film transistor is electrically connected to said second signal line through at least said first thin film transistor;

a voltage supply line formed over said substrate;

a pixel electrode formed over said substrate wherein said pixel electrode is connected to said voltage supply line through at least said second thin film transistor;  
and

a driving circuit formed over said substrate for driving at least one of said first and second thin film transistors, said driving circuit comprising a third thin film transistor wherein a channel forming region of said third thin film transistor comprises crystalline silicon,

said method comprising a step of applying one or more pulses from said voltage supply line to said pixel electrode during one frame wherein a number of pulses applied to said pixel electrode during one frame is determined in accordance with a desired tone of a display.

35. (Currently Amended) An operation method of ~~a semiconductor~~ an active matrix display device comprising:

a substrate having an insulating surface;

a first signal line extending over said substrate;

a first bottom gate type thin film transistor having a channel region comprising crystalline silicon and a first pair of impurity regions formed over said substrate wherein a gate of said first thin film transistor is connected to said first signal line;

a second signal line extending across said first signal line;

a second bottom gate type thin film transistor having a channel region comprising crystalline silicon and a second pair of impurity regions formed over said substrate wherein a gate of said second thin film transistor is electrically connected to said second signal line through at least said first thin film transistor;

a voltage supply line formed over said substrate;

a pixel electrode formed over said substrate wherein said pixel electrode is connected to said voltage supply line through at least said second thin film transistor; and

a driving circuit formed over said substrate for driving at least one of said first and second thin film transistors, said driving circuit comprising a third thin film transistor wherein a channel forming region of said third thin film transistor comprises crystalline silicon,

said method comprising a step of applying one or more pulses from said voltage supply line to said pixel electrode during one frame wherein a number of pulses applied to said pixel electrode during one frame is determined in accordance with a desired tone of a display.

36. (Currently Amended) An operation method of ~~a semiconductor~~ an active matrix display device comprising:

a substrate having an insulating surface;

a first signal line extending over said substrate;

a first thin film transistor having a channel region comprising crystalline silicon and a first pair of impurity regions formed over said substrate wherein a gate of said first thin film transistor is connected to said first signal line;

a second signal line extending across said first signal line;

a second thin film transistor having a channel region comprising crystalline silicon and a second pair of impurity regions formed over said substrate wherein a signal is applied to a gate of said second thin film transistor from said second signal line through at least said first thin film transistor;

a voltage supply line formed over said substrate;

a pixel electrode formed over said substrate wherein said pixel electrode is supplied with a voltage from said voltage supply line through at least said second thin film transistor; and



a driving circuit formed over said substrate for driving at least one of said first and second thin film transistors, said driving circuit comprising a third thin film transistor wherein a channel forming region of said third thin film transistor comprises crystalline silicon,

said method comprising a step of applying one or more pulses from said voltage supply line to said pixel electrode during one frame wherein a number of pulses applied to said pixel electrode during one frame is determined in accordance with a desired tone of a display.

37. (Currently Amended) An operation method of ~~a semiconductor~~ an active matrix display device comprising:

- a substrate having an insulating surface;

- a first signal line extending over said substrate;

- a first top-gate type thin film transistor having a channel region comprising crystalline silicon and a first pair of impurity regions formed over said substrate wherein a gate of said first thin film transistor is connected to said first signal line;

- a second signal line extending across said first signal line;

- a second top-gate type thin film transistor having a channel region comprising crystalline silicon and a second pair of impurity regions formed over said substrate wherein a gate of said second thin film transistor is electrically connected to said second signal line through at least said first thin film transistor;

- a voltage supply line formed over said substrate;

- a surface smoothing film formed over said first and second thin film transistors;

- a pixel electrode formed over said surface smoothing film wherein said pixel electrode is connected to said voltage supply line through at least said second thin film transistor; and

- a driving circuit formed over said substrate for driving at least one of said first and second thin film transistors, said driving circuit comprising a third thin film transistor

wherein a channel forming region of said third thin film transistor comprises crystalline silicon,

said method comprising a step of applying one or more pulses from said voltage supply line to said pixel electrode during one frame wherein a number of pulses applied to said pixel electrode during one frame is determined in accordance with a desired tone of a display.

38. (Currently Amended) An operation method of ~~a semiconductor~~ an active matrix display device comprising:

a substrate having an insulating surface;

a first signal line extending over said substrate;

a first bottom gate type thin film transistor having a channel region comprising crystalline silicon and a first pair of impurity regions formed over said substrate wherein a gate of said first thin film transistor is connected to said first signal line;

a second signal line extending across said first signal line;

a second bottom gate type thin film transistor having a channel region comprising crystalline silicon and a second pair of impurity regions formed over said substrate wherein a gate of said second thin film transistor is electrically connected to said second signal line through at least said first thin film transistor;

a voltage supply line formed over said substrate;

a surface smoothing film formed over said first and second thin film transistors;

a pixel electrode formed over said surface smoothing film wherein said pixel electrode is connected to said voltage supply line through at least said second thin film transistor; and

a driving circuit formed over said substrate for driving at least one of said first and second thin film transistors, said driving circuit comprising a third thin film transistor wherein a channel forming region of said third thin film transistor comprises crystalline silicon,

said method comprising a step of applying one or more pulses from said voltage supply line to said pixel electrode during one frame wherein a number of pulses applied to said pixel electrode during one frame is determined in accordance with a desired tone of a display.

39. (Currently Amended) An operation method of ~~a semiconductor~~ an active matrix display device comprising:

- a substrate having an insulating surface;

- a first signal line extending over said substrate;

- a first thin film transistor having a channel region comprising crystalline silicon and a first pair of impurity regions formed over said substrate wherein a gate of said first thin film transistor is connected to said first signal line;

- a second signal line extending across said first signal line;

- a second thin film transistor having a channel region comprising crystalline silicon and a second pair of impurity regions formed over said substrate wherein a signal is applied to a gate of said second thin film transistor from said second signal line through at least said first thin film transistor;

- a voltage supply line formed over said;

- a surface smoothing film formed over said first and second thin film transistors;

- a pixel electrode formed over said surface smoothing film wherein said pixel electrode is supplied with a voltage from said voltage supply line through at least said second thin film transistor; and

- a driving circuit formed over said substrate for driving at least one of said first and second thin film transistors, said driving circuit comprising a third thin film transistor wherein a channel forming region of said third thin film transistor comprises crystalline silicon,

said method comprising a step of applying one or more pulses from said voltage supply line to said pixel electrode during one frame wherein a number of pulses applied

to said pixel electrode during one frame is determined in accordance with a desired tone of a display.

40. (Currently Amended) An operation method of ~~a semiconductor~~ an active matrix display device comprising:

- a substrate having an insulating surface;

- a first signal line extending over said substrate;

- a first top-gate type thin film transistor having a channel region comprising crystalline silicon and a first pair of impurity regions formed over said substrate wherein a gate of said first thin film transistor is connected to said first signal line;

- a second signal line extending across said first signal line;

- a second top-gate type thin film transistor having a channel region comprising crystalline silicon and a second pair of impurity regions formed over said substrate wherein a gate of said second thin film transistor is electrically connected to said second signal line through at least said first thin film transistor;

- a voltage supply line formed over said substrate;

- a pixel electrode formed over said substrate wherein said pixel electrode is connected to said voltage supply line through at least said second thin film transistor;

and

- a driving circuit formed over said substrate for driving at least one of said first and second thin film transistors, said driving circuit comprising a third thin film transistor wherein a channel forming region of said third thin film transistor comprises crystalline silicon,

- wherein a channel width of said second thin film transistor is larger than a channel width of said first thin film transistor,

- said method comprising a step of applying one or more pulses from said voltage supply line to said pixel electrode during one frame wherein a number of pulses applied

to said pixel electrode during one frame is determined in accordance with a desired tone of a display.

41. (Currently Amended) An operation method of ~~a semiconductor~~ an active matrix display device comprising:

- a substrate having an insulating surface;

- a first signal line extending over said substrate;

- a first bottom gate type thin film transistor having a channel region comprising crystalline silicon and a first pair of impurity regions formed over said substrate wherein a gate of said first thin film transistor is connected to said first signal line;

- a second signal line extending across said first signal line;

- a second bottom gate type thin film transistor having a channel region comprising crystalline silicon and a second pair of impurity regions formed over said substrate wherein a gate of said second thin film transistor is electrically connected to said second signal line through at least said first thin film transistor;

- a voltage supply line formed over said substrate;

- a pixel electrode formed over said substrate wherein said pixel electrode is connected to said voltage supply line through at least said second thin film transistor;

and

- a driving circuit formed over said substrate for driving at least one of said first and second thin film transistors, said driving circuit comprising a third thin film transistor wherein a channel forming region of said third thin film transistor comprises crystalline silicon,

- wherein a channel width of said second thin film transistor is larger than a channel width of said first thin film transistor,

- said method comprising a step of applying one or more pulses from said voltage supply line to said pixel electrode during one frame wherein a number of pulses applied

to said pixel electrode during one frame is determined in accordance with a desired tone of a display.

42. (Currently Amended) An operation method of ~~a semiconductor~~ an active matrix display device comprising:

- a substrate having an insulating surface;

- a first signal line extending over said substrate;

- a first thin film transistor having a channel region comprising crystalline silicon and a first pair of impurity regions formed over said substrate wherein a gate of said first thin film transistor is connected to said first signal line;

- a second signal line extending across said first signal line;

- a second thin film transistor having a channel region comprising crystalline silicon and a second pair of impurity regions formed over said substrate wherein a signal is applied to a gate of said second thin film transistor from said second signal line through at least said first thin film transistor;

- a voltage supply line formed over said substrate;

- a pixel electrode formed over said substrate wherein said pixel electrode is supplied with a voltage from said voltage supply line through at least said second thin film transistor; and

- a driving circuit formed over said substrate for driving at least one of said first and second thin film transistors, said driving circuit comprising a third thin film transistor wherein a channel forming region of said third thin film transistor comprises crystalline silicon,

- wherein a channel width of said second thin film transistor is larger than a channel width of said first thin film transistor,

- said method comprising a step of applying one or more pulses from said voltage supply line to said pixel electrode during one frame wherein a number of pulses applied

to said pixel electrode during one frame is determined in accordance with a desired tone of a display.

43. (Currently Amended) An operation method of ~~a semiconductor~~ an active matrix display device comprising:

- a substrate having an insulating surface;

- a first signal line extending over said substrate;

- a first top-gate type thin film transistor having a channel region comprising crystalline silicon formed over said substrate wherein a gate of said first thin film transistor is connected to said first signal line;

- a second signal line extending across said first signal line;

- a second top-gate type thin film transistor having a channel region comprising crystalline silicon formed over said substrate wherein a gate of said second thin film transistor is electrically connected to said second signal line through at least said first thin film transistor;

- a voltage supply line formed over said substrate; and

- a pixel electrode formed over said substrate wherein said pixel electrode is connected to said voltage supply line through at least said second thin film transistor;

wherein a channel width of said second thin film transistor is larger than a channel width of said first thin film transistor,

said method comprising a step of applying one or more pulses from said voltage supply line to said pixel electrode during one frame wherein a number of pulses applied to said pixel electrode during one frame is determined in accordance with a desired tone of a display.

44. (Currently Amended) An operation method of ~~a semiconductor~~ an active matrix display device comprising:

- a substrate having an insulating surface;

a first signal line extending over said substrate;

a first bottom gate type thin film transistor having a channel region comprising crystalline silicon formed over said substrate wherein a gate of said first thin film transistor is connected to said first signal line;

a second signal line extending across said first signal line

a second bottom gate type thin film transistor having a channel region comprising crystalline silicon formed over said substrate wherein a gate of said second thin film transistor is electrically connected to said second signal line through at least said first thin film transistor;

a voltage supply line formed over said substrate; and

a pixel electrode formed over said substrate wherein said pixel electrode is connected to said voltage supply line through at least said second thin film transistor;

wherein a channel width of said second thin film transistor is larger than a channel width of said first thin film transistor,

said method comprising a step of applying one or more pulses from said voltage supply line to said pixel electrode during one frame wherein a number of pulses applied to said pixel electrode during one frame is determined in accordance with a desired tone of a display.

45. (Currently Amended) An operation method of ~~a semiconductor~~ an active matrix display device comprising:

a substrate having an insulating surface;

a first signal line extending over said substrate;

a first thin film transistor having a channel region comprising crystalline silicon formed over said substrate wherein a gate of said first thin film transistor is connected to said first signal line;

a second signal line extending across said first signal line;



a second thin film transistor having a channel region comprising crystalline silicon formed over said substrate wherein a signal is applied to a gate of said second thin film transistor from said second signal line through at least said first thin film transistor;

a voltage supply line formed over said substrate; and

a pixel electrode formed over said substrate wherein said pixel electrode is supplied with a voltage from said voltage supply line through at least said second thin film transistor;

wherein a channel width of said second thin film transistor is larger than a channel width of said first thin film transistor,

said method comprising a step of applying one or more pulses from said voltage supply line to said pixel electrode during one frame wherein a number of pulses applied to said pixel electrode during one frame is determined in accordance with a desired tone of a display.

46. (Currently Amended) An operation method of ~~a semiconductor~~ an active matrix display device comprising:

a substrate having an insulating surface;

a first signal line extending over said substrate;

a first top-gate type thin film transistor having a channel region comprising crystalline silicon and a first pair of impurity regions formed over said substrate wherein a gate of said first thin film transistor is connected to said first signal line;

a second signal line extending across said first signal line;

a second top-gate type thin film transistor having a channel region comprising crystalline silicon and a second pair of impurity regions formed over said substrate wherein a gate of said second thin film transistor is electrically connected to said second signal line through at least said first thin film transistor;

a voltage supply line formed over said substrate;

a pixel electrode formed over said substrate wherein said pixel electrode is connected to said voltage supply line through at least said second thin film transistor; and

wherein a channel width of said second thin film transistor is larger than a channel width of said first thin film transistor,

said method comprising a step of applying one or more pulses from said voltage supply line to said pixel electrode during one frame wherein a number of pulses applied to said pixel electrode during one frame is determined in accordance with a desired tone of a display.

47. (Currently Amended) An operation method of ~~a semiconductor~~ an active matrix display device comprising:

a substrate having an insulating surface;

a first signal line extending over said substrate;

a first bottom gate type thin film transistor having a channel region comprising crystalline silicon and a first pair of impurity regions formed over said substrate wherein a gate of said first thin film transistor is connected to said first signal line;

a second signal line extending across said first signal line;

a second bottom gate type thin film transistor having a channel region comprising crystalline silicon and a second pair of impurity regions formed over said substrate wherein a gate of said second thin film transistor is electrically connected to said second signal line through at least said first thin film transistor;

a voltage supply line formed over said substrate;

a pixel electrode formed over said substrate wherein said pixel electrode is connected to said voltage supply line through at least said second thin film transistor; and

wherein a channel width of said second thin film transistor is larger than a channel width of said first thin film transistor,

said method comprising a step of applying one or more pulses from said voltage supply line to said pixel electrode during one frame wherein a number of pulses applied to said pixel electrode during one frame is determined in accordance with a desired tone of a display.

48. (Currently Amended) An operation method of ~~a semiconductor~~ an active matrix display device comprising:

- a substrate having an insulating surface;

- a first signal line extending over said substrate;

- a first thin film transistor having a channel region comprising crystalline silicon and a first pair of impurity regions formed over said substrate wherein a gate of said first thin film transistor is connected to said first signal line;

- a second signal line extending across said first signal line;

- a second thin film transistor having a channel region comprising crystalline silicon and a second pair of impurity regions formed over said substrate wherein a signal is applied to a gate of said second thin film transistor from said second signal line through at least said first thin film transistor;

- a voltage supply line formed over said substrate;

- a pixel electrode formed over said substrate wherein said pixel electrode is supplied with a voltage from said voltage supply line through at least said second thin film transistor; and

wherein a channel width of said second thin film transistor is larger than a channel width of said first thin film transistor,

said method comprising a step of applying one or more pulses from said voltage supply line to said pixel electrode during one frame wherein a number of pulses applied

to said pixel electrode during one frame is determined in accordance with a desired tone of a display.

49. (Currently Amended) The method according to any one of claims 3, 6, 9, 12, 15, 18, 27, 30, 33, 36, 39 or 42 wherein said ~~semiconductor~~ active matrix display device is a liquid crystal device.

50. (Original) The method according to claim 49 wherein each of said first and second thin film transistors is a top-gate transistor.

51. (Original) The method according to claim 49 wherein each of said first and second thin film transistors is a bottom-gate transistor.

52.-65. (Canceled)

66. (Currently Amended) The method according to claim 45 wherein said ~~semiconductor~~ active matrix display device is a liquid crystal device.

67. (Previously Presented) The method according to claim 3 or 27 wherein said second signal line is connected to a drain of said first thin film transistor, said voltage supply line is connected to a drain of said second thin film transistor, and said pixel electrode is connected to a source of said thin film transistor.

68. (Previously Presented) The method according to claim 12, 15, 18, 36, 39 or 42 wherein said second signal line is connected to one of said first pair of impurity regions of said first thin film transistor, said voltage supply line is connected to one of said second pair of impurity regions of said second thin film transistor, and said pixel

electrode is connected to the other one of said second pair of impurity regions of said second thin film transistor.